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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,764	10/20/2003	Byung-Ryul Ryoo	1293.1910	8966
21171 STAAS & HA	7590 10/31/2007 LSEY LLP	•	EXAMINER	
SUITE 700			GOMA, TAWFIK A	
WASHINGTO	ORK AVENUE, N.W. ON, DC 20005		ART UNIT PAPER NUMBER 2627	
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			10/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

•	Application No.	Applicant(s)				
	10/687,764	RYOO ET AL.				
Office Action Summary	Examiner	Art Unit .				
	Tawfik Goma	2627				
The MAILING DATE of this comm Period for Reply	unication appears on the cover	sheet with the correspondence a	ddress			
A SHORTENED STATUTORY PERIOD WHICHEVER IS LONGER, FROM THE - Extensions of time may be available under the provising after SIX (6) MONTHS from the mailing date of this constitution. If NO period for reply is specified above, the maximum and reply received by the Office later than three month earned patent term adjustment. See 37 CFR 1.704(b)	MAILING DATE OF THIS CO ons of 37 CFR 1.136(a). In no event, however mmunication. In statutory period will apply and will expire S ply will, by statute, cause the application to as after the mailing date of this communication.	MMUNICATION. ver, may a reply be timely filed IX (6) MONTHS from the mailing date of this become ABANDONED (35 U.S.C. § 133).				
Status		•				
1) Responsive to communication(s)	filed on <u>17 August 20</u> 07.					
2a) ☐ This action is FINAL.	<u> </u>					
3) Since this application is in condition	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the pra	ctice under <i>Ex parte Quayle</i> , 1	935 C.D. 11, 453 O.G. 213.				
Disposition of Claims						
4) ⊠ Claim(s) <u>1-5 and 7-12</u> is/are pend 4a) Of the above claim(s) is 5) ☐ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1-5 and 7-12</u> is/are reject 7) ☐ Claim(s) is/are objected to 8) ☐ Claim(s) are subject to res	lare withdrawn from considerated.					
Application Papers						
9) The specification is objected to by 10) The drawing(s) filed on is/a Applicant may not request that any of Replacement drawing sheet(s) includ 11) The oath or declaration is objected	re: a) accepted or b) objection to the drawing(s) be held ing the correction is required if the	n abeyance. See 37 CFR 1.85(a). drawing(s) is objected to. See 37 C				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim a) All b) Some * c) None of 1. Certified copies of the prior 2. Certified copies of the prior 3. Copies of the certified copies	ty documents have been receing ty documents have been receing the priority documents hanged tional Bureau (PCT Rule 17.2)	ved. ved in Application No ve been received in this Nationa a)).	al Stage			
Attachment(s)						
1) Notice of References Cited (PTO-892)	• —	nterview Summary (PTO-413)				
 2) Notice of Draftsperson's Patent Drawing Review 3) Information Disclosure Statement(s) (PTO/SB/0 Paper No(s)/Mail Date 	8) 5) 🔲 1	Paper No(s)/Mail Date Notice of Informal Patent Application Other:	•			

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DETAILED ACTION

This action is in response to the amendment filed on 8/17/2007.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 7, 8 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Komma et al (US 5644413) in view of Yagi et al (US 5754513).

Regarding claim 1, Komma discloses an optical pickup apparatus comprising: a light source which emits laser light (45, fig. 19); a beam splitter which changes the travel path of incident light (48, fig. 19); an objective lens which condenses light passed through the beam splitter to form a light spot on an optical recording medium (50, fig. 19); and a photo detector which receives light reflected from the optical recording medium and then passed through the beam splitter to detect an information signal and an error signal (53, fig. 19), wherein the optical pickup apparatus further comprises a grating which diffraction-transmits all incident light (94, fig. 20), a wavelength plate which changes polarization characteristic of incident light (95, fig. 20), and an optical output compensating lens which compensates output of light incident from the light source (100, fig. 20), all of which being disposed on an optical path between the light source and the beam splitter (99, fig. 19), wherein at least two of the grating, the wavelength plate, and the optical output compensating lens are formed in one body (99, figs. 19 and 20).

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Further regarding claim 1, Komma discloses a holder in which the light source is fixed (45, fig. 19) but fails to disclose a cylinder, in which at least two of the grating, the wavelength plate, and the optical output compensating lens are fixed and which is movable in an optical axis direction with respect to the holder and is installed rotatably, wherein a position of the cylinder is adjustable in the optical axis direction and a rotation direction with respect to the holder. In the same field of endeavor, Yagi discloses a cylinder (121, fig. 82a) supporting optical elements including a grating (12, fig. 82a) and which is capable of supporting the elements to be rotatable about an optical axis (col. 66 lines 9-22) and adjustable in an optical axis direction (col. 66 lines 15-22 and col. 61 lines 12-22). It would have been obvious to one of ordinary skill in the art to modify the optical pickup disclosed by Komma by providing for a cylinder for rotating and moving the optical element as taught by Yagi. The rationale is as follows: One of ordinary skill in art at the time of the applicant's invention would have been motivated to provide the rotatable and movable support in order to adjust parameters of an optical axis for multiple types of disks used with a single pickup (see Yagi, col. 61 lines 12-22).

Regarding claim 2, Komma further discloses wherein the grating is formed on an optical incident surface and/or an optical emitting surface of the wavelength plate, so that the grating and the wavelength plate are formed in one body (99, fig.19).

Regarding claim 3, Komma further discloses wherein the wavelength plate, which is formed in one body with the grating, is bonded to the optical output compensating lens (99, fig. 20).

Regarding claim 4, Komma further discloses wherein the grating is formed on

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an optical incident surface and/or an optical emitting surface of the optical output compensating lens, so that the grating and the optical output compensating lens are formed in one body (94, 100, 99, fig.20).

Regarding claim 5, Komma further discloses wherein the wavelength plate and the optical output compensating lens are bonded to each other (95, 100, fig. 20).

Regarding claim 7, Komma further discloses wherein the grating is formed on an optical incident surface of the wavelength plate, so that the grating and the wavelength plate are formed in one body (94, 95, fig. 20).

Regarding claim 8, Komma further discloses wherein the wavelength plate, which is formed in one body with the grating, is bonded to the optical output compensating lens (95, 100, fig. 20).

Regarding claim 11, Komma further discloses wherein the grating is formed on an optical incident surface of the optical output compensating lens, so that the grating and the optical output compensating lens are formed in one body (94, 100, fig. 20).

Claims 9, 10 and 12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Komma et al (US 5644413) in view of Yagi et al (US 5754513)

Regarding claims 9, 10 and 12 Komma in view of Yagi disclose all of the components of the optical element and their alternative arrangement as applied above (see claims 1-5, 7, 8 and 11). Claims 9, 10 and 12 are directed to a rearrangement of the optical elements disclosed by Komma. It would have been obvious to one of ordinary skill in the art to modify the optical element disclosed by Komma by rearranging the optical elements. The claims are deemed an

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obvious rearrangement that does not change the scope of the overall invention (see MPEP 2144.04 Paragraph VI (C)). See *In re Japikse*, 86 USPQ 70 (CCPA 1950).

Response to Arguments

Applicant's arguments with respect to claims 1-5 and 7-12 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tawfik Goma whose telephone number is (571) 272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tawfik Goma/_{10/22/2007}

/William Korzuch/ SPE, Art Unit 2627